

What Is Claimed Is:

1. A liquid crystal display device, comprising:

a liquid crystal panel having a pixel region;

a graphic interface unit generating a first data enable signal having first and second time intervals;

a signal modulating unit generating a second data enable signal by using the first data enable signal, the second data enable signal having third and fourth time intervals; and

a timing controller generating the data signals by using the second data enable signal,

wherein data signals are not input to the pixel region during the third time interval and are input to the pixel region during the fourth time interval, and the fourth time interval is shorter than the second time interval.

2. The device according to claim 1, wherein the third and fourth time intervals constitute single frame time, and the fourth time interval is less than about 80 % of the single frame time.

3. The device according to claim 1, wherein the first data enable signal includes a plurality of first peaks having a first period and the second data enable signal includes a plurality of second peaks having a second period.
4. The device according to claim 3, wherein the second period is shorter than the first period.
5. The device according to claim 4, wherein the signal modulating unit modulates from the first period to the second period.
6. The device according to claim 1, wherein the graphic interface unit further generates a horizontal sync signal, a vertical sync signal, and RGB data.
7. The device according to claim 1, wherein the liquid crystal panel includes a gate line, a data line, a thin film transistor connected to the gate line and the data line, and a liquid crystal layer in the pixel region, and the gate line and the data line cross each other to define the pixel region.
8. The device according to claim 1, wherein the signal modulating unit is disposed in one of the graphic interface unit and the timing controller.

9. A liquid crystal display device, comprising:
a liquid crystal panel having a pixel region;
a graphic interface unit generating a data enable signal having first and second time intervals,; and
a timing controller generating the data signals by using the data enable signal,

wherein data signals are not input to the pixel region during the first time interval and are input to the pixel region during the second time interval, the first and second time intervals constitute single frame time, and the second time interval is less than about 80 % of the single frame time.

10. The device according to claim 9, wherein the graphic interface unit further generates a horizontal sync signal, a vertical sync signal, and RGB data.

11. The device according to claim 9, wherein the liquid crystal panel includes a gate line, a data line, a thin film transistor connected to the gate line and the data line, and a liquid crystal layer in the pixel region, and the gate line and the data line cross each other to define the pixel region.

12. A method of driving a liquid crystal display device having a liquid crystal panel, a graphic interface unit, a signal modulating unit, and a timing controller, comprising:

generating a first data enable signal having first and second time intervals in the graphic interface unit;

generating a second data enable signal by using the first data enable signal in the signal modulating unit, the second data enable signal having third and fourth time intervals; and

generating the data signals by using the second data enable signal in the timing controller,

wherein data signals are not input to the liquid crystal panel during the third time interval and are input to the liquid crystal panel during the fourth time interval, and the fourth time interval is shorter than the second time interval.

13. The method according to claim 12, wherein the third and fourth time intervals constitute single frame time, and the fourth time interval is less than about 80 % of the single frame time.

14. The method according to claim 12, wherein the first data enable signal includes a plurality of first peaks having a first period, and the second data enable signal includes a plurality of second peaks having a second period.

15. The method according to claim 14, wherein the signal modulating unit modulates the first data enable signal to the second data enable signal such that the second period is shorter than the first period.

16. The method according to claim 12, further comprising generating a horizontal sync signal, a vertical sync signal, and RGB data in the graphic interface unit.

17. A method of driving a liquid crystal display device having a liquid crystal panel, a graphic interface unit, and a timing controller, comprising:

generating a data enable signal having first and second time intervals in the graphic interface unit; and

generating the data signals by using the data enable signal the timing controller,

wherein data signals are not input to the liquid crystal panel during the first time interval and are input to the liquid crystal panel during the second time interval, the first and second time intervals constitute single frame time, and the second time interval is less than about 80 % of the single frame time.

18. The method according to claim 17, further comprising generating a horizontal sync signal, a vertical sync signal, and RGB data in the graphic interface unit.